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CERTIFICATE OF TRANSMISSION BY FACSIMILE (37 CFR 1.8) Applicant(s): Julian Van Erlach, et al.			Docket No. XILL-3095
Serial No. 09/727,718	Filing Date 11/30/2000	Examiner Barry Pass	Group Art Unit 3737

Invention: METHOD FOR INSERTING A MICRODEVICE OR A NANDEVICE INTO A BODY FLUID STREAM

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P18/REV01

AMENDMENT TRANSMITTAL LETTER (Small Entity) Applicant(s): Julian Van Erlach et al.			Docket No. XILL-3095
Serial No. 09/727,718	Filing Date 11/30/2000	Examiner Barry Pass	Group Art Unit 3737

Invention: METHOD FOR INSERTING A MICRODEVICE OR A NANDEVICE INTO A BODY FLUID STREAM

TO THE COMMISSIONER FOR PATENTS:

Transmitted herewith is an amendment in the above-identified application.

- ☒ Small Entity status of this application has been established under 37 CFR 1.27 by a verified statement previously submitted.
- ☐ A verified statement to establish Small Entity status under 37 CFR 1.27 is enclosed.

The fee has been calculated and is transmitted as shown below.

CLAIMS AS AMENDED

	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST # PREV. PAID FOR		NUMBER EXTRA CLAIMS PRESENT		RATE	ADDITIONAL FEE
TOTAL CLAIMS	21	-	20	=	1	x	$9.00	$9.00
INDEP. CLAIMS	3	-	3	=	0	x	$43.00	$0.00
Multiple Dependent Claims (check if applicable) ☐								$0.00
TOTAL ADDITIONAL FEE FOR THIS AMENDMENT								$9.00

- ☐ No additional fee is required for amendment.
- ☒ Please charge Deposit Account No. 9.00 in the amount of
- ☐ A check in the amount of to cover the filing fee is enclosed.
- ☒ The Director is hereby authorized to charge payment of the following fees associated with this communication or credit any overpayment to Deposit Account No.
  - ☒ Any additional filing fees required under 37 C.F.R. 1.16.
  - ☐ Any patent application processing fees under 37 CFR 1.17.

Signature

Dated: May 21, 2004

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cc:

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Julian Van Erlach *et al.*	)	Examiner: Barry Pass
Serial No.: 09/727,718	)	Art Unit: 3737
Filed: 11/30/2000	)	
For: METHOD FOR INSERTING A MICRODEVICE OR A NANODEVICE INTO A BODY FLUID STREAM	)	

Commissioner For Patents
Washington D.C. 20231

Sir:

This paper is being filed in response to the office Action mailed March 3, 2004. Reconsideration and allowance are respectfully requested in view of the Amendments and Remarks below.

AMENDMENT

1. (CURRENTLY AMENDED) A method comprising:

~~proving~~ providing at least one of a microdevice and a nanodevice, having at least one circuit feature thereon;

encapsulating at least one of said microdevice and said nanodevice, wherein said encapsulating is ~~not~~ within a cell other than a white blood cell and wherein an immunogenicity of the cell-protected microdevice or nanodevice with respect to an animal exceeds an immunogenicity of the naked microdevice or nanodevice with respect to the animal; and

inserting at least one of said microdevice and said nanodevice into a ~~fluid stream within~~ a body.

2. (CANCELLED).

3. (CURRENTLY AMENDED) The method of claim ~~2~~ 1, further comprising the step of inserting at least one of said microdevice and said nanodevice into a cell, wherein said cell is a red blood cell.

4. (CURRENTLY AMENDED) The method of claim ~~2~~ 1, wherein the step of encapsulation further comprises the step of encapsulating a substrate into said cell via at least one of reversible osmotic lysis, electroporation, microfine needle injection, and particle gun injection.

5. (PREVIOUSLY PRESENTED) The method of claim 1, further comprising the step of inserting at least one of said microdevice and nanodevice into a biological member, wherein said biological member is selected from the group consisting of a blood cell, lipid molecules, a liver cell, a nerve cell, a skin cell, a bone cell, a lymph cell, an endocrine cell, a circulatory cell, and a muscle cell.

6. (PREVIOUSLY PRESENTED) The method of claim 1, wherein the step of providing at least one of said microdevice and said nanodevice further comprises providing at least one of said nanodevice and said microdevice selected from the group consisting of a diagnostic system, a transmitter, a receiver, a battery, a transistor, a capacitor, and a detector.

7. (CANCELLED).

8. (PREVIOUSLY PRESENTED) The method of claim 1, further comprising the step of encapsulating at least one of said microdevice and nanodevice into a biological member, wherein said biological member is one of a red blood cell and lipid molecules.

9. (PREVIOUSLY PRESENTED) The method of claim 1, further comprising a step of selecting a substrate for at least one of said nanodevice and said microdevice from the group consisting of Gallium Arsenide, silicon, and silicon oxides.

10. (CANCELLED)

11. (PREVIOUSLY PRESENTED) The method of claim 1, wherein the step of providing at least one of said microdevice and said nanodevice, further comprises providing at least one of said nanodevice and said microdevice of a resonance type nanodevice.

12. (PREVIOUSLY PRESENTED) The method of claim 1, further comprising detecting at least one of said nanodevice and said microdevice by one of electron paramagnetic resonance (EPR), electron spin resonance (ESR) and nuclear magnetic resonance (NMR).

13. (PREVIOUSLY PRESENTED) The method of claim 12, wherein the step of detecting further comprises EPR detecting molecules selected from the group consisting of free radicals, odd electron molecules, transition metal complexes, lanthanade ions and triplet state molecules.

14. (PREVIOUSLY PRESENTED) The method of claim 1, further comprising a step of selecting a material for at least one of said nanodevice and said microdevice from the group consisting of phosphorus, arsenic, sulfur, germanium and organic free radicals.

15. (CURRENTLY AMENDED) A method, comprising:

providing at least one of a nanodevice and a microdevice, having at least one circuit feature thereon;

encapsulating at least one of said microdevice and said nanodevice, wherein said ~~encapsulating~~ one of said microdevice and said nanodevice is not encapsulated via phagocytosis [within a white blood cell]; and

inserting the at least one of said nanodevice and said microdevice in a blood stream within a body.

16. (CURRENTLY AMENDED) The method of claim 15, further comprising a step of ~~chemically modifying~~ pegylating the at least one of said nanodevice and said microdevice ~~to prolong vascular retention, prevent immunologic detection, or prevent unwanted endocytosis by cells~~.

17. (PREVIOUSLY PRESENTED) The method of claim 15, further comprising a step of chemically modifying the at least one of said nanodevice and said microdevice with an organo hydroxyl.

18. (PREVIOUSLY PRESENTED) The method of claim 17, further comprising the step of chemically modifying includes selecting said organo hydroxyl group from the group consisting of poly (ethylene glycol), methoxypoly (ethylene glycol).

19. (PREVIOUSLY PRESENTED) The method of claim 15, wherein the step of encapsulating further comprising attaching a lipid anchor to at least one of said nanodevice and said microdevice with an organo hydroxyl.

20. (NEW) A method, comprising:

covalently bonding a linker molecule to at least one of a microdevice and a nanodevice,

wherein a non-immunogenic polymer is covalently attached to the linker molecule to form a polymer-protected microdevice or nanodevice, and wherein an immunogenicity of the polymer-protected microdevice or nanodevice with respect to an animal exceeds an immunogenicity of the naked microdevice or nanodevice with respect to the animal.

21. (NEW) The method of claim 20, further comprising the step of covalently attaching a polymer includes an organo hydroxyl group from the group consisting of poly (ethylene glycol), methoxypoly (ethylene glycol).

22. (NEW) The method of Claim 20, further comprising utilizing the at least one of a nanodevice and a microdevice for drug delivery.

23. (NEW) The method of Claim 20, wherein the linker molecule is a lipid anchor.

24. (NEW) The method of claim 20, further comprising the step of:
introducing the polymer-protected nanodevice or microdevice into the animal.